EDITORIAL ARTICLES.

ON LATERAL PHARYNGOTOMY FOR THE EXTIRPATION OF MALIGNANT TUMORS OF THE TONSILLAR REGION.

When Cheever, of Boston, reported his first case of operation for removal of a malignant tumor of the tonsillar region in 1869, he was able to find but scant reference in literature to the subject. His case, indeed, seems to have been the first in which an attempt was made to methodically and radically extirpate such a tumor from without by lateral pharyngotomy. In his first operation, Cheever did not divide the jaw bone, nor perform a preliminary tracheotomy, but by making an incision from a point just within the angle of the jaw downwards for $3^1/_2$ inches parallel to the sterno-cleido mastoid muscle, followed by a second incision, $1^1/_2$ inches in length, along the lower border of the jaw, meeting the first incision, he gained sufficient room, so that, after having divided the digastric, stylo-hyoid and stylo-glossus muscles, and having picked apart the fibres of the superior constrictor of the pharynx, he was able to enucleate the affected tonsil without injury to the pillars of the fauces. The tumor thus removed is described as the size of a hen's egg. That this operation was not sufficiently radical is evidenced, however, by the fact that speedy recurrence of the disease took place, infiltrating the soft palate.

In a second case reported by the same surgeon, operated in 1878, the jaw was sawn through, and a preliminary tracheotomy was done, and the growth easily enucleated, but with no better result as regards the future of the patient, for at the end of two months recurrence at the site of the original disease had already taken place.

Meanwhile additional contributions to the literature of the subject had been made, in particular a valuable memoir by Poland in the Brit. and For. Med. Chir. Rev., April, 1872, and by Passaquay (Paris, 1873). Since the publication of Cheever's second case (Boston Med. and Surg. Jour., August 1, 1878), the noteworthy contributions upon the

subject which have been made to literature are chiefly a statistical paper by Delavan, of New York, on the subject of Primary Epithelioma of the Tonsil (N. Y. Med. Jour., April, 1882), an exhaustive memoir, involving statistical, pathological and operative features, by Castex, in the *Révue de Chirurgie*, 1886, and a clinical report by Mikulicz, of Cracow, in the *Deutsche Med. Wochenschrift*, Nos. 10 and 11, 1886.

The memoir of Castex is deserving of a full review, which will be given in a subsequent number of this journal. The remainder of the present article will be devoted to the contribution of Mikulicz.

The operative steps of M. are as follows:

Incision in the cutis from the mastoid process obliquely downwards to the great cornu of the hyoid bone. The soft parts are divided carefully, partially, also, the tissues of the parotid gland, and the edge of the ramus of the inferior maxillary bone exposed posteriorly, care being taken to avoid injuring the facial nerve.

The periosteum is then removed with the raspatorium from the external and internal surface of the ramus, upwards as far as possible and downwards as far as the insertions of the masseter and internal pterygoid muscles. The ramus is divided subperiosteally $^1/_2$ to 1 cm. above the angle, and enucleated. Traction is now made on the jaw downwards and outwards, and the masseter, internal pterygoid, also the digastric and stylohyoid, drawn to one side. The tonsillar region will be found to form the base of the wound thus made. By dividing the lateral wall of the pharynx, direct entrance is obtained to the palatal arches, base of tongue and to the posterior pharyngeal wall upwards into the naso-pharyngeal space. If the digastric muscle be furthermore divided, the entrance to the larynx will be exposed. Before beginning this operation, it will be advisable to perform tracheotomy. The author claims for this operation a great advantage over that of Langenbeck, inasmuch as by his method a tumor involving the lateral pharynx wall may be exposed from outwards, and the whole operation carried out *extra cavum oris et pharyngis*. The author's method also permits of an antiseptic treatment. (Tamponade with iodoform-gauze).

Mikulicz gives the history of four cases, operated by himself in this manner.

Case I. Tonsillar carcinoma involving the posterior pharynx wall, the base of the tonge and the soft palate.

Patient, female, æt. 65, had difficulty in swallowing for one and a half years. A diagnosis of carcinoma of the left tonsil was made six months previous to the operation. Pharyngotomy. The inferior maxillary bone was not divided above the angle, but $1^1/_2$ ctm. in front of this; consequently the insertions of the masseter and internal pterygoid muscles were severed. Removal of carcinoma. Tamponade with idoform gauze. Patient nourished by means of rubber tube for two weeks, when edges of wound were freshened up and united by sutures. In three weeks the external wound had healed, and that of the pharynx completely in six weeks. Movement of the jaw perfectly free, also the acts of swallowing and speaking. Patient remained in this condition for two years when a few suspicious looking ulcerating spots were observed in the cicatrix, and a few months later the relapse was complete.

Case II. Sarcoma of the tonsillar region,occupying most of the pharynx.

Patient, male, æt. 28, had noticed a swelling about the angle of the jaw, right side, some three months before. He has had considerable trouble in swallowing and speaking for the past two months and difficulty in breathing for one month. At times slight hæmorrhage from mouth. On examination a soft tumor, size of goose egg, is found on the right side under the angle of jaw. A soft tumor also seen in the right tonsillar region, involving the whole middle part of the pharynx, reaching downwards to the larynx and upwards to the choanæ. Preventive tracheotomy. Pharyngotomy according to author's own method. The extipation of the whole mass of tumor necessitated opening the pharynx. The defect in this reached from the choanæ to the larynx. Patient nourished by means of a rubber tube passed into the œsophagus and fastened by sutures to the external skin. Dressings of iodoform gauze. Canula removed from the trachea on the tenth day, the tube from the œsophagus on the twelfth. Discharged cured in four weeks. Breathing and swallowing entirely free, and

voice clear. Patient died three months later, suddenly, but from what cause was not ascertained.

The third case is that of a carcinoma of the left tonsil, involving also the palatal arches and extending to the hard palate. Patient, male, æt. 61, badly nourished and very anæmic, died two and a half hours after the operation from collapse and the aspiration of blood. Tracheotomy was not performed in this case. The loss of blood during the operation was considerable.

The fourth case was a carcinoma of the lateral pharyngeal wall. Male, æt. 42, had observed a hard swelling at the angle of the jaw, left side, for two months. For some time the difficulty in swallowing and breathing has been very great. The tumor had its origin in the left tonsil and involved both palatal arches, the choanæ, and furthermore the lateral pharynx wall, and reached downwards to the larynx. Pharyngotomy with preventive tracheotomy. The whole lateral wall of the pharynx, involved by the disease, from the epiglottis to the choanæ, was excised from without, also the palatal arches and the left half of the soft palate. The tissues were found infiltrated to the base of the skull. Dressings as in Case 3. On the sixth day, ligature of the carotid was necessary to control hæmorrhage. Canula removed from trachea in three weeks, and œsophagus tube in four weeks. Patient left clinic in six weeks, the external wound having healed. He complained much of severe headaches before leaving. The mass of tumor left in the naso-pharyngeal space was found to be rapidly increasing in size. Patient was not seen again. In regard to this latter case, Mikulicz remarks that in his opinion, malignant neoplasms in the upper naso-pharynx do not offer any field for operative treatment, as a thorough extirpation of a diffusely extended carcinoma is not possible in this place. A careful examination in the narcosis should therefore be made before operating. If extirpation of the tumor be impossible, enucleation of the ramus of the jaw should be undertaken, as proposed by Küster, in order to relieve the patient at least of the painful condition of lock-jaw. If the insertions of the masseter and internal pterygoid remain intact, the acts of chewing and speaking will not be interfered with, and the position of the two rows of teeth to each other little, if any, changed by this latter operation. The usefulness and in

many cases the necessity of a preceding tracheotomy is specially mentioned. The danger of neglecting this is seen in Case 3, where the collapsed and anæmic patient had not sufficient strength to expectorate the blood, which had entered the larynx. 30 p. c. iodoform-gauze was used for dressings. Symptoms of iodoform intoxication, however, appearing in the first case, on the eight day, 10 p. c. iodoform-gauze was substituted. As a result of his experience the author remarks that such symptoms of intoxication appear especially often in cases where the secretions from large wound surfaces, saturated with iodoform, enter the digestive tract. As soon as such symptoms appear, he removes the gauze, and uses dressings of mull moistened with a solution of acetate of alumen. These may be continued from four to five days without injury to the wound. The introduction of a rubber tube into the œsophagus at the close of the operation, for feeding the patient, was altogether satisfactory, and spared the patient the pain which would have followed such a procedure later on, affording, also, the necessary rest to the wounded parts.

Regarding the different methods of operating, the author has but little to say. He thinks, however, the subhyoid pharyngotomy especially adapted for tumors situated more anteriorly. Küster's method, where the incision is made through the cheek, from the angle of the mouth to the anterior edge of the sterno-cleido-mastoid muscle, he recommends for tumors arising from the alveolar process and mucous membrane of mouth. In conclusion the author gives some interesting facts concerning the occurrence and course of carcinoma of the tonsils and lateral pharyngeal wall. He has observed seven cases in three years. Mackenzie has also reported seven cases. Of the latter five were males, aged respectively 22, 37, 47, 58 and 67 years, whilst the ages of the two females were 34 and 43 years, respectively. Of Mikulicz's seven cases, five were males, two females, with ages ranging from 42 to 65 years. Küster had two cases, both males, aged 49 and 61 years. This makes a total of sixteen cases, twelve males and four females. The left tonsil was the seat of the disease in six of the author's seven cases, and in both of those of Küster. In these nine cases the palatal arches and the palate were invaded in eight, the base of the tongue in five, the posterior pharynx wall in four, the supra-and

intramaxillary bones in three, the carcinoma extended to the larynx in three, and upwards beyond the choanæ in two cases.

The first symptoms of the disease appeared three to fifteen months before consultation, but had existed probably prior to this without being remarked.

Pain in swallowing occurs relatively late, generally when the carcinoma has involved the palatal arches, palate, tongue and jaw bone. The diagnosis will not be difficult, when the tumor has reached the stage of ulceration, but at the commencement of the disease we are often in doubt as to its true nature.

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THE PARIS SOCIETY OF SURGERY AND THE QUESTION OF OPERATION FOR TUBERCULOUS JOINT DISEASE.

At the meeting of the Paris *Société de chirurgie* for the 10th of February last, Dr. Chauvel reported in detail upon a paper by Dr. Mabboux, of Lille, on the question of prognosis and operation in the tuberculous. The paper of Mabboux was based upon two cases of tuberculous joint disease, (1) the first originating in caries of the fourth metatarsal bone of a young soldier, with resection of the disease, which was followed by synovitis of the peroneal sheath and, later, by suppuration of the tibio-tarsal articulation and concomitant pulmonary tuberculosis; after three months, all the symptoms continuing to be more unfavorable, the foot was amputated, and rapid cure followed, with abatement and final disappearance of the pulmonary symptoms, the patient being in the enjoyment of robust health at the time of the writing of the paper; (2) the second case was apparently less favorable to the theory of operative intervention; a corporal of the line, æt. 24, entered the hospital at Lille in May, 1885, for arthritis of the left knee, consecutive to a fall received a month previously. He had had hæmoptysis in 1884 but had been well since then. In spite of immobilization and all other methods, the disease progressed until August 15, when the contents of the joint were found on aspiration to be purulent; indura-